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# FIG. 1

## a: Nucleotide sequence

Wild Boar	CTCCCTGCTCCCTGCTCCCTGGCGGGACG	1	ATG CCT GTG CTT GGC CCG GAG AGG AGG	27
Meishan	.....		.....	
Pietrain	.....		.....	
Wild Boar	CTG CTG GCT TCC CTC AGC TCC GCG CCC CCA GCC GCC CCC	75	** CGG CCG CCA	
Meishan	.....		**	
Pietrain	.....		CC	
Wild Boar	ACG CCT CGG GCT CAG ACC AAC CAG ACG GGC CCC CAG TGC CTG GAG GTG TCC	126		
Meishan	.....		.....	
Pietrain	.....		.....	
Wildboar	ATT CCC GAC GGG CTC TTC CTC AGC CTG GGG CTG GTG AGC CTC GTG GAG AAC	177		
Meishan	.....		.....	
Pietrain	.....		.....	
Largewhite	.....		.....	
Hampshire	.....		.....	
Duroc	.....		.....	
Wildboar	GTG CTG GTG GTG GCC GCC ATC GCC AAG AAC CGC AAC CTG CAC TCG CCC ATG	228		
Meishan	.....		.....	
Pietrain	.....		.....	
Largewhite	.....		.....	
Hampshire	.....		.....	
Duroc	.....		.....	
Wildboar	TAC TAC TTC GTC TGC CTG GCC GTG TCG GAC CTG CTG GTG AGC GTG AGC	279		
Meishan	.....		.....	
Pietrain	.....		.....	
Largewhite	.....		.....	
Hampshire	.....		.....	
Duroc	.....		.....	
Wildboar	AAC GTG CTG GAG ACG GCC GTG CTG CTG CTG GAG GCG GGC GCC CTG GCC	329		
Meishan	... A ..		... C ..	
Pietrain	.....		.....	
Largewhite	.....		.....	
Hampshire	.....		.....	
Duroc	.....		.....	
Wildboar	GCC CAG GCC GCC GTG GTG CAG CAG CTG GAC AAT GTC ATG GAC GTG CTC ATC	380		
Meishan	.....		... C ..	
Pietrain	.....		... A ..	
Largewhite	.....		... A ..	
Hampshire	.....		... A ..	
Duroc	.....		.....	

Wildboar	TGC GGC TCC ATG GTG TCC AGC CTC TGC TTC CTG GGC GCC ATC GCC GTG GAC	431
Meishan	...	
Pietrain	...	
Largewhite	...	
Hampshire	...	
Duroc	...	
Wildboar	CGC TAC GTG TCC ATC TTC TAC GCG CTG CGC TAC CAC AGC ATC GTG ACG CTG	483
Meishan	...	
Pietrain	...	
Largewhite	...	
Hampshire	...	
Duroc	...	
Wildboar	CCC CGC GCG GGG CGG GCT ATC GCG GCG ATC TGG GCG GGC AGC GTG CTC TCC	534
Meishan	...	
Pietrain	...	
Largewhite	...	
Hampshire	...	
Duroc	...	
Wildboar	AGC ACC CTC TTC ATC GCC TAC CAC CAC ACG GCC GTC CTG CTG GGC CTC	585
Meishan	...	
Pietrain	...	
Largewhite	...	
Hampshire	...	
Duroc	...	
Wildboar	GTC AGC TTC TTC GTG GCC ATG CTG GCG CTC ATG GCG GTA CTG TAC GTC CAC	636
Meishan	...	
Pietrain	...	
Largewhite	...	
Hampshire	...	
Duroc	...	
Wildboar	ATG CTG GCC CGG GCC TGC CAG CAC GGC CGG CAC ATC GCC CGG CTC CAC AAG	687
Meishan	...	
Pietrain	...	
Largewhite	...	
Hampshire	...	
Duroc	...	
Wildboar	ACG CAG CAC CCC ACC CGC CAG GGC TGC GGC CTC AAG GGC GCG GCC ACC CTC	738
Meishan	...	
Pietrain	...	
Largewhite	...	
Hampshire	...	
Duroc	...	

FIG. 1 CONT'D

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b. Amino acid sequence

Wildboar	RAGRAIAAIW	AGSVLSSTLF	IAYYHHTAVL	LGLVSFFVAM	LALMAVLYVH	MLARACQHGR	219
Meishan	.....	.....	.....	.....	.....	.....	.....
Largewhite	.....	.....	.....	.....	.....	.....	.....
Hampshire	.....	.....	.....	.....	.....	.....	.....
Duroc	.V.	.....	.....	.....	.....	.....	.....

Wildboar	HIARLHKTQH	PTRQGCGLKG	AATLTILLGV	FLLCWAPFFL	HLSLVVLCPQ	HPTCGCVFKN	279
Meishan	.....	.....	.....	.....	.....	.....	.....
Largewhite	.....	.....	.....	.....	.....	.....	.....
Hampshire	.....	.....	.....	.....	.....	.....	.....
Duroc	.....	.....	T.....	.....	.....	.....	.....

Wildboar	VNLFLALVIC	NSI
Meishan	.....	..
Largewhite	.....	..
Hampshire	.....	..
Duroc		

FIG. 1 CON'T

*Bst*UI

*Hha*I

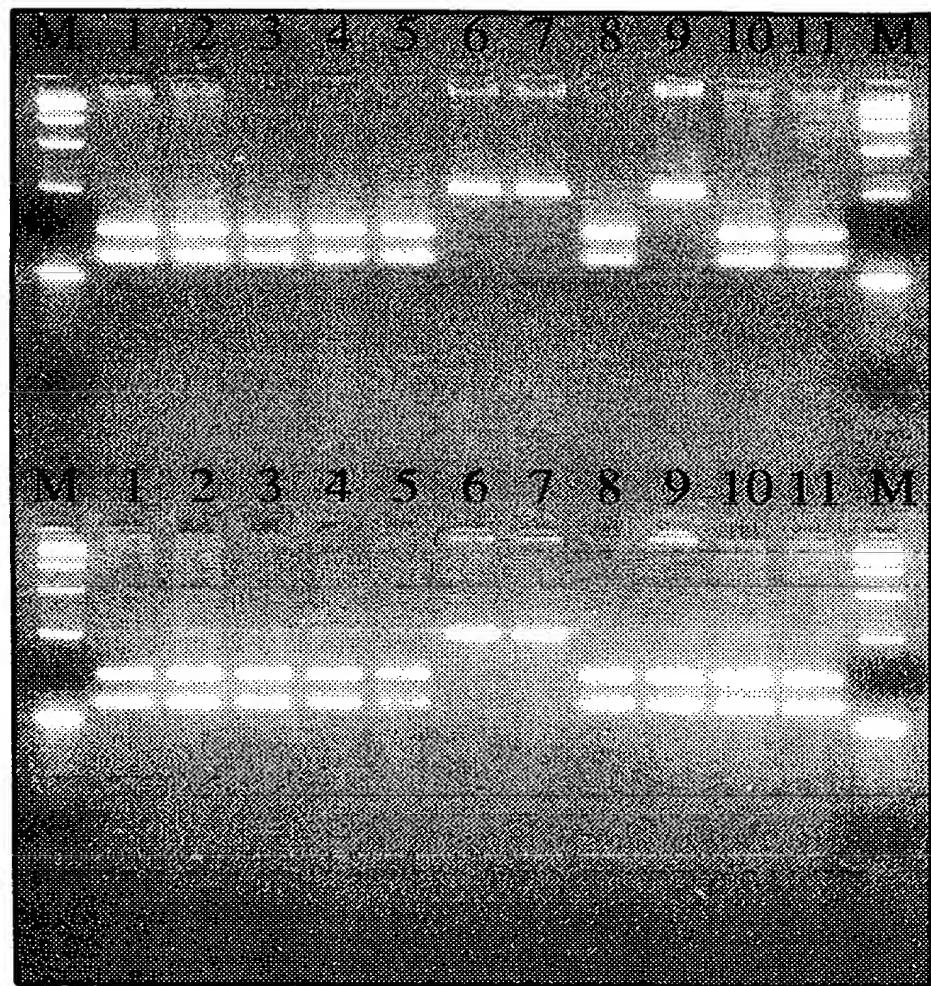


FIG. 2

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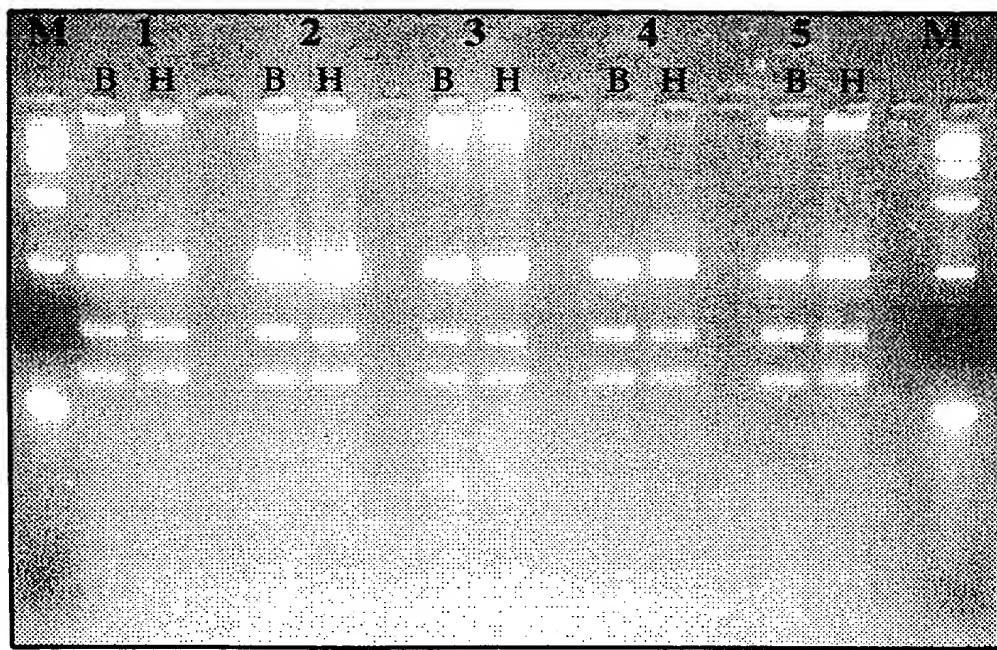


FIG. 3

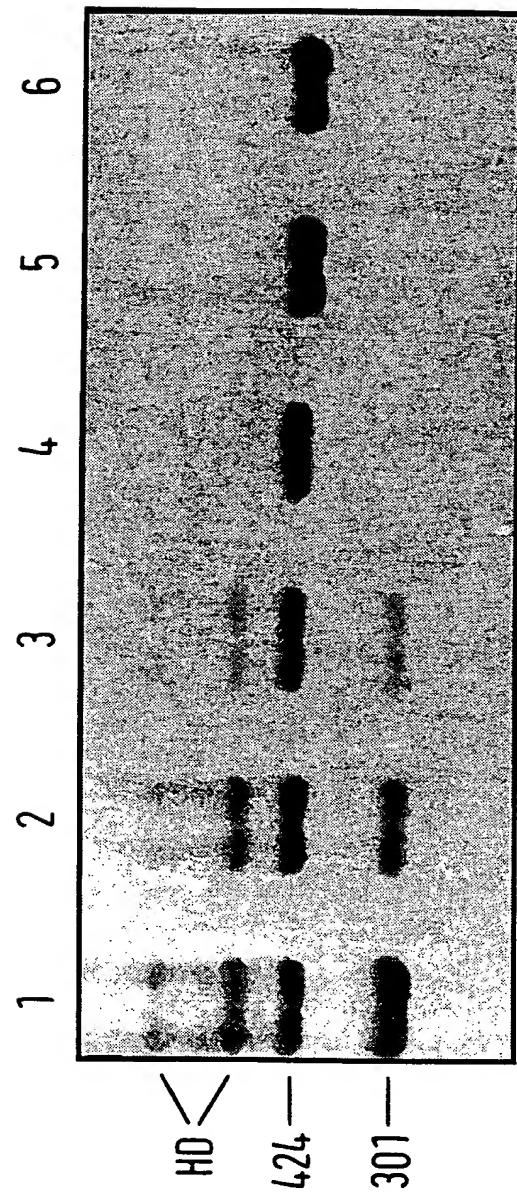


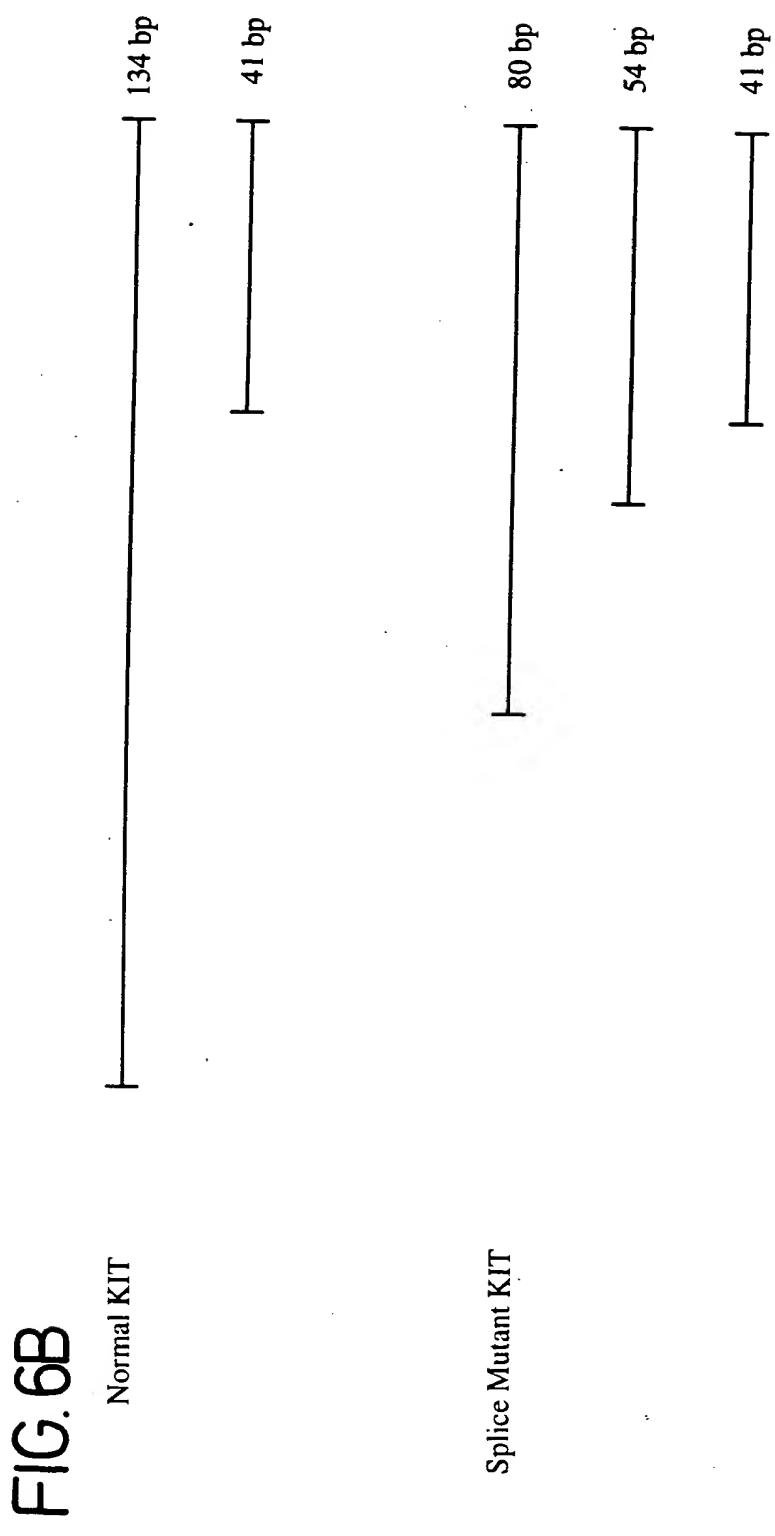
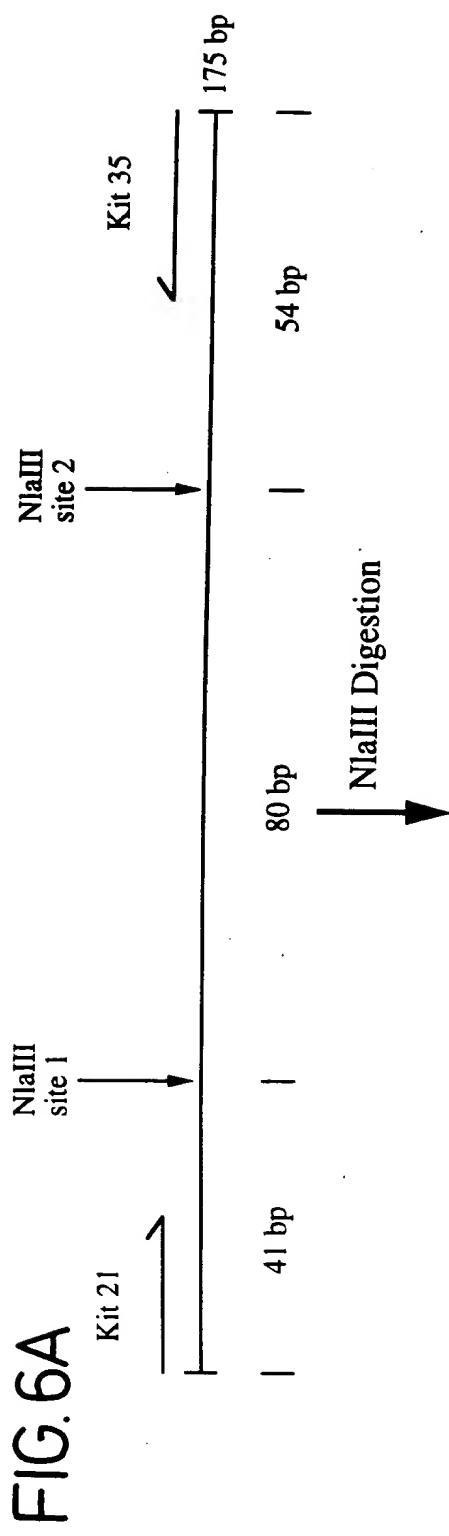
FIG. 4

**Sequence Alignment Across the Exon /Intron Border of KIT Exon 17**

Allele	Gene	Copy	Sequence
Exon 17    Intron 17			
I	KIT1	AAT TAC GTG GTC AAA GGA AAC	↓ GTG AGT ACC CAC GCT CTC CTG ACA GTC
	KIT2	.... . . . . . . . . . . . . . . . . .	A. .
I <sup>P</sup>	KIT1	.... . . . . . . . . . . . . . . . . .	G. .
i	KIT1	.... . . . . . . . . . . . . . . . . .	G. .

**FIG. 5**

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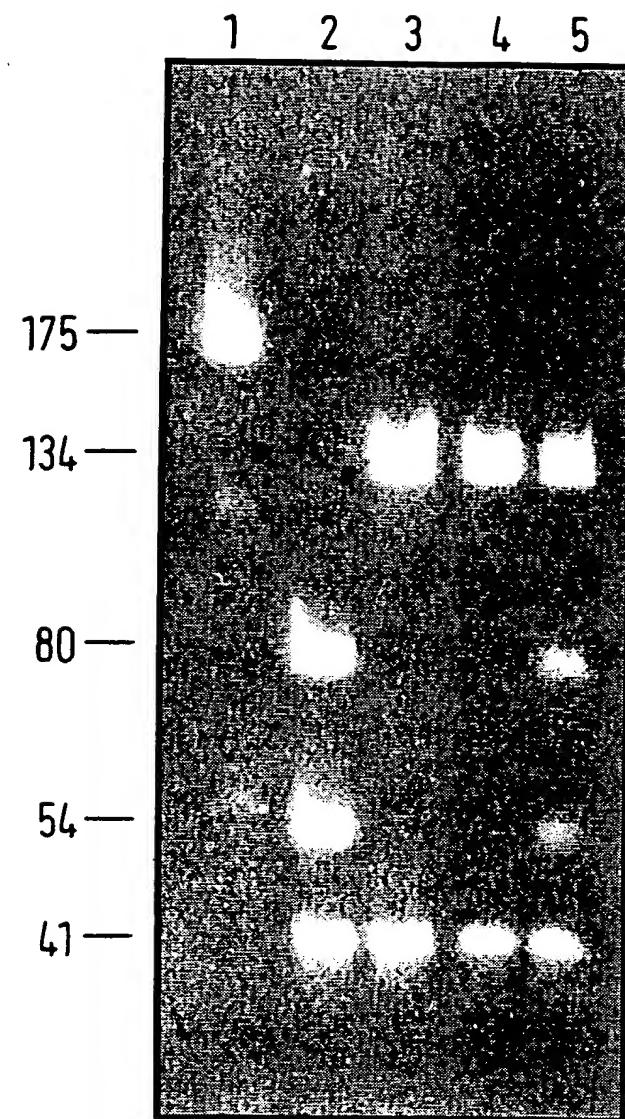


FIG. 6C

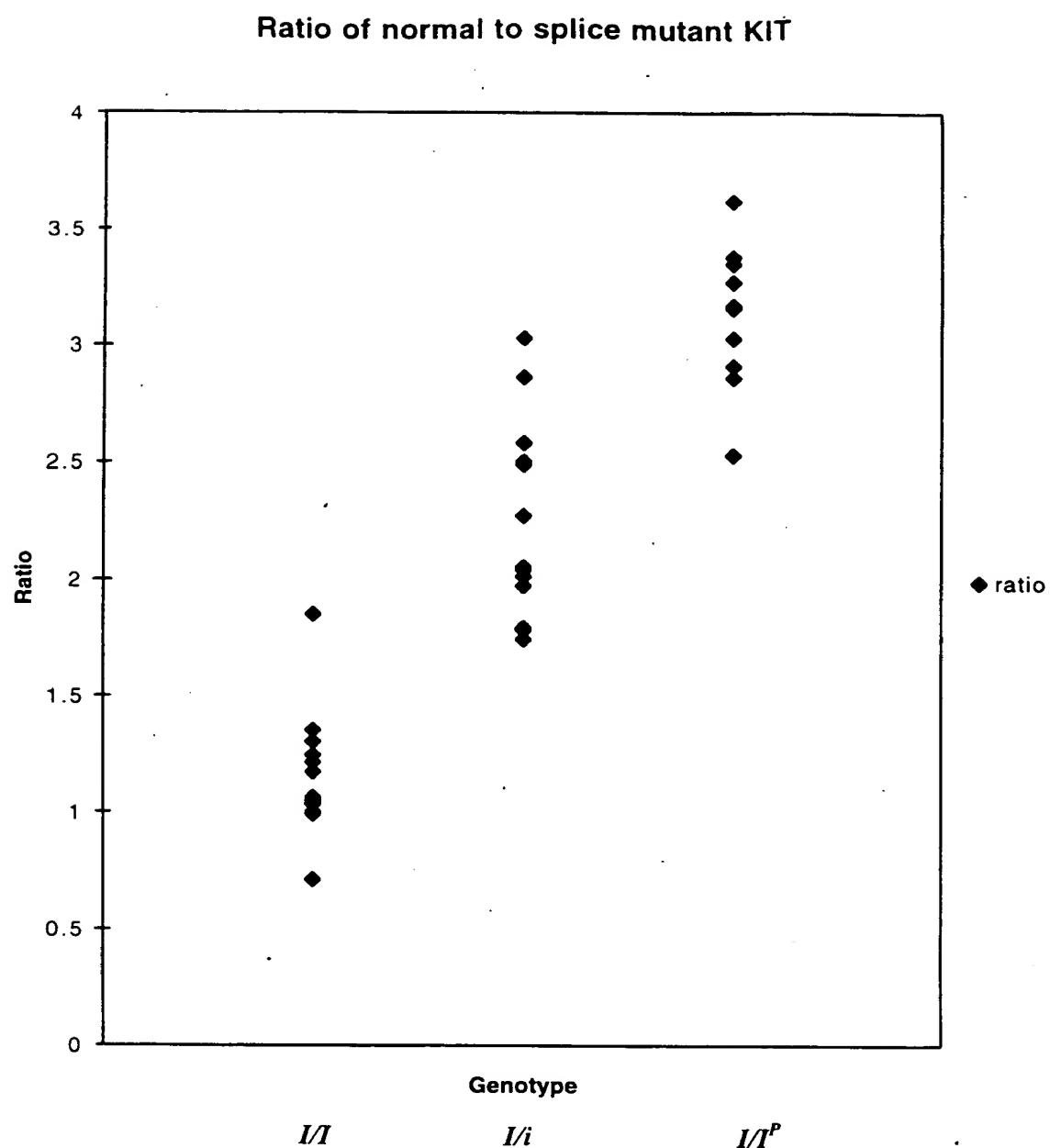
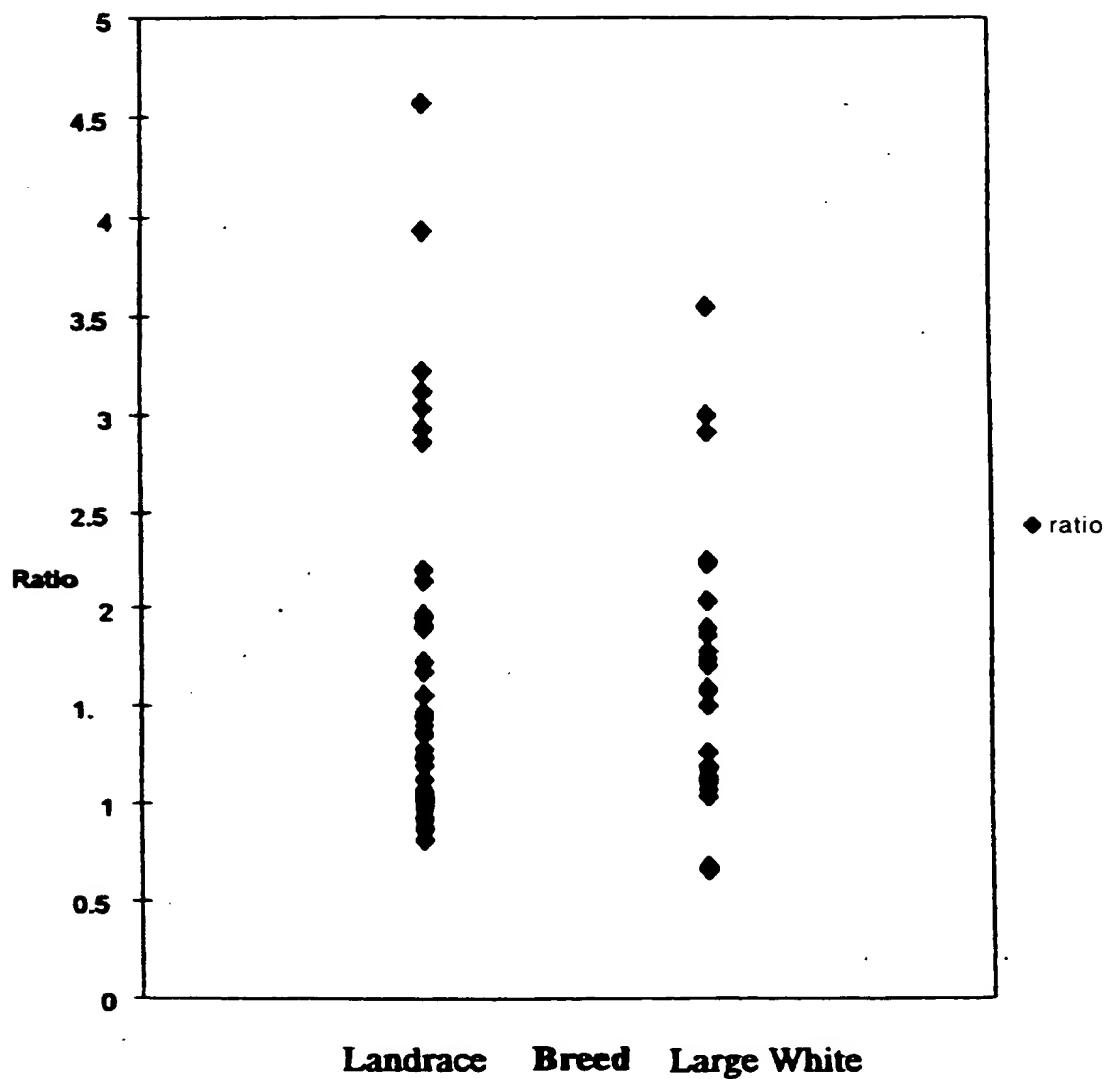


FIG. 7

**Ratios for Landrace and Large White****FIG. 8**

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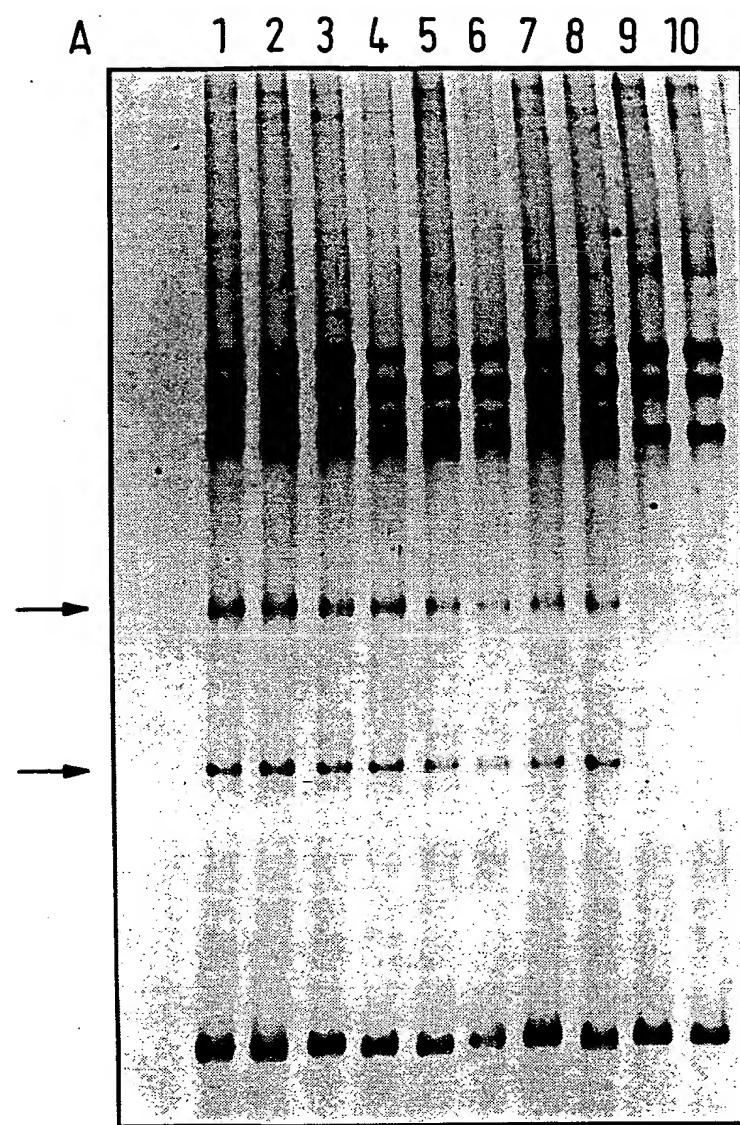


FIG. 9

1 ATG AGA GGC GCT CGC CGC GCC TGG GAT TTT CTC TTC GTC CTG CAG CTC TTG  
 52 CTT CGC GTC CAG ACA GGC TCT TCT CAG CCA TCT GTG AGT CCA GAG GAA CTG  
 103 CCA CCA TCC ATC CAT CCA GCA AAA TCA GAG TTA ATC GTC AGT GCT GGC  
 154 GAT GAG ATT AGG CTG TTC TGC ACC GAT CCA GGA TCT GTC AAA TGG ACT TTT  
 205 GAG ACC CTG GGT CAG CTG AGT GAG AAT ACA CAC GCA GAG TGG ATC GTG GAG  
 256 AAA GCA GAG GCC ATG AAT ACA GGC AAT TAT ACA TGC ACC AAT GAA GGC GGT  
 307 TTA AGC AGT TCC ATT TAT GTG TTT GTT AGA GAT CCT GAG AAG CTT TTC CTC  
 358 GTC GAC CCT CCC TTG TAT GGG AAG GAG GAC AAT GAC GCG CTG GTC CGA TGT  
 409 CCT CTG ACG GAC CCA GAG GTG ACC AAT TAC TCC CTC ACG GGC TGC GAG GGG  
 460 AAA CCC CTT CCC AAG GAT TTG ACC TTC GTC GCG GAC CCC AAG GCC GGC ATC  
 511 ACC ATC AGA AAC GTG AAG CGC GAG TAT CAT CGG CTC TGT CTC CAC TGC TCC  
 562 GCC AAC CAG GGG GGC AAG TCC GTG CTG TCG AAG AAA TTC ACC CTG AAA GTG  
 613 AGG GCA GCC ATC AGA GCT GTA CCT GTT GTG GCT GTG TCC AAA GCA AGC TAC  
 664 CTT CTC AGG GAA GGG GAG GAA TTT GCC GTG ATG TGC TTG ATC AAA GAC GTG  
 715 TCT AGT TCC GTG GAC TCC ATG TGG ATC AGG GAG AAC AGC CAG ACT AAA GCA  
 766 CAG GTG AAG AGG AAT AGC TGG CAT CAG GGT GAC TTC AAT TTT CTG CGG CAG  
 817 GAA AGG CTG ACA ATC AGC TCA GCA AGA GTT AAT GAT TCT GGC GTG TTC ATG  
 868 TGT TAC GCC AAT AAT ACT TTT GGA TCT GCA AAT GTC ACA ACC ACC TTA GAA  
 919 GTA GTA GAT AAA GGA TTC ATT AAT ATC TTC CCT ATG ATG AAT ACC ACT GTG  
 970 TTT GTA AAC GAT GGA GAG GAT GTG GAT CTA ATT GTT GAG TAC GAG GCG TAC  
 1021 CCC AAA CCT GAA CAC CGA CAG TGG ATA TAT ATG AAC CGC ACT GCC ACT GAT  
 1072 AAG TGG GAG GAT TAT CCC AAG TCT GAG AAT GAA AGT AAC ATC AGA TAT GTA  
 1123 AGT GAA CTT CAC TTG ACC AGA TTA AAA GGG ACC GAA GGA GGC ACT TAC ACA  
 1174 TTT CTC GTG TCC AAT GCT GAT GTC AAT TCT TCT GTG ACA TTT AAT GTT TAC  
 1225 GTG AAC ACA AAA CCA GAA ATC CTG ACT CAT GAC AGG CTC ATG AAC GGC ATG  
 1276 CTC CAG TGT GTG GCG GCA GGC TTC CCA GAG CCC ACC ATC GAT TGG TAT TTC  
 1327 TGT CCA GGC ACC GAG CAG AGA TGT TCC GTT CCC GTT GGG CCA GTG GAC GTG  
 1378 CAG ATC CAA AAC TCA TCT GTA TCA CCG TTT GGA AAA CTA GTG ATT CAC AGC  
 1429

TCC ATT GAT TAC AGT GCA TTC AAA CAC AAC GGC ACG GTG GAG TGC AGG GCT  
 1480  
 TAC AAC GAT GTG GGC AAG AGT TCT GCC TTT TTT AAC TTT GCA TTT AAA GAA  
 1531  
 CAA ATC CAT GCC CAC ACC CTC TTC ACG CCT TTG CTG ATT GGT TTT GTG ATC  
 1582  
 GCA GCG GGT ATG ATG TGT ATC ATC GTG ATG ATT CTC ACC TAT AAA TAT CTA  
 1633  
 CAG AAG CCC ATG TAT GAA GTA CAG TGG AAG GTT GTC GAG GAG ATA AAT GGA  
 1684  
 AAC AAT TAT GTC TAC ATA GAC CCA ACG CAA CTT CCT TAT GAT CAC AAA TGG  
 1735  
 GAA TTT CCC AGG AAC AGG CTG AGT TTT GGC AAA ACC TTG GGT GCT GGC GCC  
 1786  
 TTC GGG AAA GTC GTT GAG GCC ACT GCA TAC GGC TTA ATT AAG TCA GAT GCG  
 1837  
 GCC ATG ACC GTT GCC GTG AAG ATG CTC AAA CCA AGT GCC CAT TTA ACG GAA  
 1888  
 CGA GAA GCC CTA ATG TCT GAA CTC AAA GTC TTA AGT TAC CTC GGT AAT CAC  
 1939  
 ATG AAT ATT GTG AAT CTT CTC GGC GCC TGC ACC ATT GGA GGG CCC ACC CTG  
 1990  
 GTC ATT ACA GAA TAT TGT TGC TAT GGT GAT CTC CTG AAT TTT TTG AGA CGG  
 2041  
 AAA CGT GAT TCG TTT ATT TGC TCA AAG CAG GAA GAT CAC GCA GAA GCG GCG  
 2092  
 CTT TAT AAG AAC CTT CTG CAT TCA AAG GAG TCT TCC TGC AGT GAC AGT ACT  
 2143  
 AAC GAG TAC ATG GAC ATG AAA CCC GGA GTG TCT TAT GTG GTA CCA ACC AAG  
 2194  
 GCA GAC AAA AGG AGA TCT GCG AGA ATA GGC TCA TAC ATA GAA CGA GAT GTG  
 2245  
 ACT CCT GCC ATC ATG GAA GAT GAT GAG TTG GCC CTA GAC CTG GAG GAC TTG  
 2296  
 CTC AGC TTT TCT TAC CAA GTG GCA AAG GGC ATG GCC TTC CTC GCC TCG AAG  
 2347  
 AAT TGT ATT CAC AGA GAC TTG GCG GCC AGA AAT ATC CTC CTT ACT CAT GGT  
 2398  
 CGA ATC ACA AAG ATT TGT GAT TTT GGT CTA GCC AGA GAC ATC AAG AAT GAT  
 2449  
 TCT AAT TAC GTG GTC AAA GGA AAC GCT CGG CTA CCC GTG AAG TGG ATG GCA  
 2500  
 CCT GAG AGC ATT TTC AAC TGT GTC TAC ACA TTT GAA AGC GAT GTC TGG TCC  
 2551  
 TAT GGG ATT TTT CTG TGG GAG CTC TTC TCT TTA GGG AGC AGC CCC TAC CCC  
 2602  
 GGA ATG CCA GTT GAT TCT AAA TTC TAC AAG ATG ATC AAG GAG GGT TTC CGA  
 2653  
 ATG CTC AGC CCT GAG CAT GCA CCT GCG GAA ATG TAT GAC ATC ATG AAG ACT  
 2704  
 TGC TGG GAT GCG GAT CCC CTC AAA AGA CCA ACG TTT AAG CAG ATC GTG CAG  
 2755  
 CTG ATT GAG AAG CAG ATT TCG GAG AGC ACC AAT CAC ATT TAT TCC AAC TTA  
 2806  
 GCG AAC TGC AGC CCC CAC CGG GAG AAC CCC GCG GTG GAT CAT TCT GTG CGG  
 2857  
 ATC AAC TCC GTG GGC AGC AGT GCC TCC TCC ACG CAG CCT CTG CTT GTC CAC  
 2908  
 GAA GAT GTC TGA

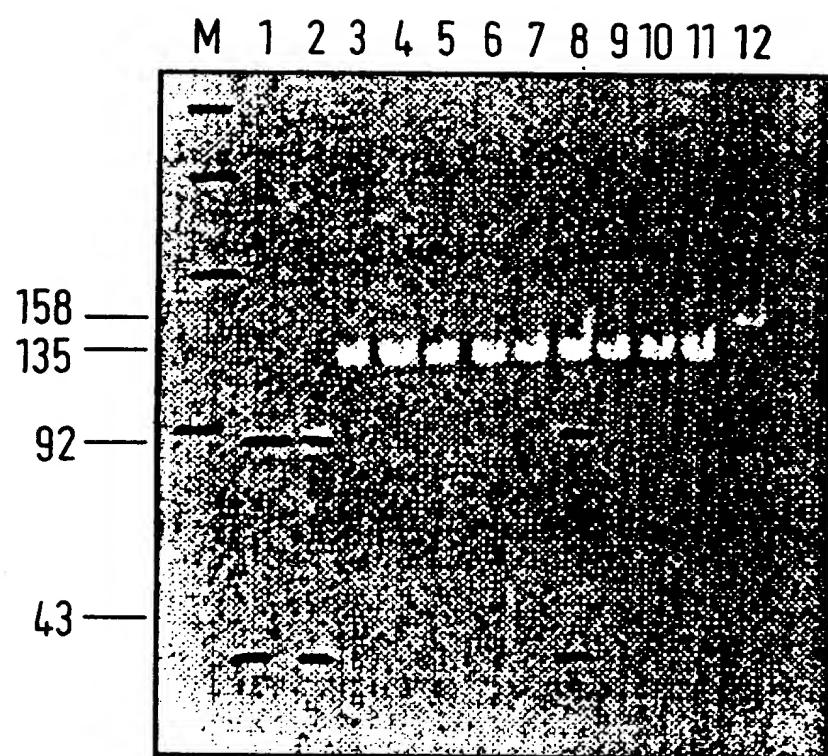


FIG. 11

Wild Boar	1012
Meishan	CTGCAGTGCT CCTGG <b>TGA</b> GG GGGGACGGGC
Large Black	-----
Hampshire	-----
Pietrain	-----
Duroc	-----
Wild Boar	1062
Meishan	GCTGGAGCCA GGCTGCGGGG CTGAGGGCAG TGGTGCCGTC CTGCGGCCCG
Large Black	-----
Hampshire	-----
Pietrain	-----
Duroc	-----
Wild Boar	1112
Meishan	GTTCCTACGT GGCTGGGCAG CCCCTTGGCA GAGAGGACGG GCCGGACATC
Large Black	-----
Hampshire	-----
Pietrain	-----
Duroc	-----
Wild Boar	1162
Meishan	TCTGAAGGTA TGGACGCTGG ACCCTCTGGG GCCCGACAGA GGAAGAGCCA
Large Black	-----
Hampshire	-----
Pietrain	-----
Duroc	-----
Wild Boar	1212
Meishan	GCACTTCCAG GAGGCATGGG GAGTGGGGGA GGCTGGAGAG ACGGCGGGGA
Large Black	-----
Hampshire	-----
Pietrain	-----
Duroc	-----
Wild Boar	1262
Meishan	GCGCCACCTC CATCCAGAGA CCACCAAGCC CGCCTTGGG GCGCGCTCTG
Large Black	-----
Hampshire	-----
Pietrain	-----
Duroc	-----

FIG. 12

Wild Boar	GGGACTTTGC	CCCCCACTGG	GGTGGGACGT	GTGCGGGCAG	AAGCTGTCCG	1312
Meishan	-----	-----	-----	-----	-----	
Large Black	-----	-----	-----	-----	-----	
Hampshire	-----	-----	-----	-----	-----	
Pietrain	-----	-----	-----	-----	-----	
Duroc	-----	-----	-----	-----	-----	
Wild Boar	GGTGTTGCTC	ACTGCAGGAC	CTCAGGGGAA	GGCCTTCGTG	ACTGCTAGGA	1362
Meishan	-----	-----	-----	-----	-----	
Large Black	-----	-----	-----	-----	-----	
Hampshire	-----	-----	-----	-----	-----	
Pietrain	-----	-----	-----	-----	-----	
Duroc	-----	-----	-----	-----	-----	
Wild Boar	AGCAGGCGCA	GCGCCCCGGC	GGAGGGCGGG	GCCCCTCTCT	TCTACGGCTC	1412
Meishan	-----	-----	-----	-----	-----	
Large Black	-----	-----	-----	-----	-----	
Hampshire	-----	-----	-----	-----	-----	
Pietrain	-----	-----	-----	-----	-----	
Duroc	-----	-----	-----	-----	-----	
Wild Boar	AGTG					
Meishan	----					
Large Black	----					
Hampshire	----					
Duroc	----					

FIG. 12 CONT'D